The opinion in support of the decision being entered today was *not* written for publication and is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

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Ex parte DAVID ALAN BAILEY, GREGORY MICHAEL NORDSTROM
and, THOMAS REMBERT SAND

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Appeal No. 2007-0330
Application No. 10/616,683
Technology Center 2100

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Decided: February 28, 2007

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Before LANCE LEONARD BARRY, MAHSHID D. SAADAT, and
ALLEN R. MACDONALD, *Administrative Patent Judges*.

MACDONALD, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134(a) from the Examiner's rejection of claims 1-16, 19, and 20. Claims 17 and 18 have been cancelled.

THE INVENTION

The disclosed invention pertains to a computer apparatus and method for autonomically detecting system reconfiguration and maintaining persistent I/O bus numbering. The disclosed invention more specifically relates to the assignment of bus numbers in a computer system that has multiple buses in multiple physical enclosures (Specification 1). The disclosed invention addresses a problem with prior art systems where an upgrade or replacement to a particular tower computer would require a highly-skilled system administrator to manually reconfigure the bus numbers (Specification 10, ll. 12-18).

Representative claim 1 is illustrative:

1.   A first apparatus comprising:

a non-volatile memory that contains:

(A) bus numbering information for at least one bus located within the first apparatus; and

(B) bus numbering information for at least one bus located within a second apparatus coupled to the first apparatus.

THE REFERENCES

The Examiner relies upon the following references as evidence of unpatentability:

Applicant's Admitted Prior Art (AAPA). *See* Specification prior art figs. 1-5, and "Overview of Prior Art" discussion, page 4, line 18 through page 11, line 14.

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THE REJECTION

The following rejection is on appeal before us:

1. Claims 1-16, 19, and 20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the teachings of AAPA in view of Mizukami.

Rather than repeat the arguments of Appellants or the Examiner, we make reference to the Briefs and the Answer for the respective details thereof.

OPINION

Only those arguments actually made by Appellants have been considered in this decision. It is our view, after consideration of the record before us, that the evidence relied upon supports the Examiner's rejection of the claims on appeal. Accordingly, we affirm.

GROUPING OF CLAIMS

We consider the obviousness of the following logical groups of claims, as defined under separate subheadings and argued separately by Appellants in the Briefs.

GROUP A: Claims 1-3, and 7-11.

GROUP B: Claims 4-6, 12-16, 19, and 20.

MOTIVATION

With respect to all claims on appeal, Appellants argue the Examiner has impermissibly relied upon hindsight and has failed to provide a proper motivation for combining the admitted prior art (AAPA) and the Mizukami reference. Appellants note that Mizukami is concerned with preserving node data in a communication system in the event of a power loss in one node or

if lost packet information occurs. Appellants distinguish the instant claimed invention as being directed to configuring bus numbering information when equipment is changed by using information stored in the non-volatile memory of a second apparatus. Appellants argue that an artisan would not have looked to Mizukami's system for managing information in network nodes (i.e., using *volatile memory*) to solve the problem of restoring bus information in a *non-volatile memory* that is lost due to equipment change (emphasis added) (Br. 6-7).

The Examiner disagrees. The Examiner notes that AAPA teaches a non-volatile memory in each physical enclosure that stores bus numbering information for that particular tower (Specification 5, ll. 3-19). The Examiner acknowledges that AAPA does not disclose storing a copy of the bus numbering information in a non-volatile memory in a second physical enclosure. However, the Examiner notes that Mizukami teaches storing a copy of a node's configuration data (i.e., a physical enclosure's configuration data) in each of its adjacent nodes. The Examiner equates the AAPA bus numbering information to Mizukami's node configuration data. The Examiner points out that the loss of configuration data (i.e., in the nodes of AAPA or Mizukami) is severely detrimental because it causes a disruption of service to the remainder of the system and thus reduces overall system performance. The Examiner concludes that one of ordinary skill in the art would have been be motivated to store or replicate bus numbering information in a neighboring enclosure to reduce the possibility of failure and thus provide *more reliable* system performance (Answer 21-22).

After carefully considering all of the evidence before us, we do not find Appellants' argument persuasive that the Examiner has impermissibly

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used hindsight in formulating the rejection. We note that the Court of Appeals for the Federal Circuit has determined that the motivation to combine under § *103* must come from a teaching or suggestion within the *prior art,* within the *nature of the problem to be solved,* or within *the general knowledge of a person of ordinary skill* in the field of the invention, to look to particular sources, to select particular elements, and to combine them as combined by the inventor. *Ruiz v. A.B. Chance Co.,* 234 F.3d 654, 665, 57 USPQ2d 1161, 1167 (Fed. Cir. 2000) (emphasis added). In the instant case, we find that the Examiner has adequately established a motivation found in the *nature of the problem to be solved,* as clearly described in the AAPA (*See* Specification prior art figs. 1-5, and "Overview of Prior Art" discussion, p. 4, l. 18 through p. 11, l. 14). In addition, the Examiner has pointed to a motivation found in the prior art Mizukami reference at ¶¶ 0017 and 0106 (*see* Answer 3-4).

Furthermore, our reviewing court has recently reaffirmed that "an implicit motivation to combine exists not only when a suggestion may be gleaned from the prior art as a whole, but when the 'improvement' is technology-independent and the combination of references results in a product or process that is more desirable, for example because it is stronger, cheaper, cleaner, faster, lighter, smaller, more durable, or more efficient ... In such situations, the proper question is whether the ordinary artisan possesses knowledge and skills rendering him *capable* of combining the prior art references." *DyStar Textilfarben GmbH & Co. Deutschland KG v. C.H. Patrick Co.,* 464 F.3d 1356, 1368, 80 USPQ2d 1641, 1651 (Fed. Cir. 2006) (emphasis in original). In the instant case, we conclude that the ordinary artisan who possessed knowledge and skills relating to computer

systems that included multiple computer tower enclosures and associated bus numbering schemes would have been *capable of* combining AAPA and Mizukami in the manner suggested by the Examiner for the purpose of realizing *more reliable* system performance in the event of a failure associated with a particular computer tower enclosure.

For at least the aforementioned reasons, we find the Examiner has provided an adequate reason why an artisan would have modified the AAPA system with the teachings of Mizukami.

We now address specific claim limitations with respect to each group of claims separately argued in the Briefs.

GROUP A, Claims 1-3, and 7-11

We consider first the Examiner's rejection of claims 1-3, and 7-11 as being unpatentable over the teachings of AAPA in view of Mizukami. Since Appellants' arguments with respect to this rejection have treated these claims as a single group which stand or fall together, we will select independent claim 1 as the representative claim for this rejection because it is the broadest independent claim in this group.
See 37 C.F.R. § 41.37(c)(1)(vii)(2004).

Appellants argue that AAPA in view of Mizukami does not teach or suggest storing bus information in the non-volatile memory of a second apparatus (Br. 9).

The Examiner disagrees. The Examiner relies upon AAPA as teaching a non-volatile memory that stores bus numbering information for a particular computer tower enclosure (*see* Specification 5, ll. 3-19). The Examiner acknowledges that AAPA is silent with respect to storing a copy

of the bus numbering information in a non-volatile memory within a second physical enclosure. However, the Examiner notes that Mizukami teaches storing a copy of a node's configuration data (i.e., node information) in each of its adjacent nodes (i.e., where at least one adjacent node corresponds to the claimed second apparatus). The Examiner asserts that Mizukami's configuration data (i.e., node information) broadly represents any data that is vital to the operation of the node. The Examiner notes that storing such information in adjacent physical enclosures reduces the possibility that critical information is lost in the event of a failure (*see* Mizukami, ¶ 0017). The Examiner concludes that the combination of AAPA and Mizukami suggests "storing bus numbering information in non-volatile memory in a second apparatus," as claimed (Answer 20-21).

We will sustain the rejection of claim 1 for essentially the same reasons argued by the Examiner in the Answer. We find the prior art drawings in the Specification clearly show bus numbering information stored in non-volatile memories that are associated with each of Towers A-D (Specification Figs. 1-5). We find Appellants' own description of the prior art (AAPA) explicitly discloses: "some system reconfigurations may occur as *hardware fails*" (Specification 10, 1. 21, emphasis added). Appellants further acknowledge that the prior art (AAPA) describes "the problem with assigning bus numbers in non-volatile memory when the system requires bus reconfiguration due to reconfiguration of the system arising from a hardware upgrade or *hardware failure*" (Reply Br. 2, emphasis added).

We find that Mizukami discloses a system for managing information in nodes on a network wherein each node has *a backup information memory unit* that stores predetermined information associated with an *adjacent node*

(i.e., second apparatus) (¶ 0018). In particular, we note that Mizukami discloses the object of its invention is to reduce the possibility that information may be lost when *a failure occurs in a node* (¶ 0017).

Therefore, we conclude the weight of the evidence supports the Examiner's position that Mizukami suggests a solution to the problem clearly defined in Appellants' own detailed description of the prior art (AAPA). Accordingly, we will sustain the Examiner's rejection of representative claim 1 as being unpatentable over AAPA in view of Mizukami.

Pursuant to 37 C.F.R. § 41.37(c)(1)(vii), we have decided the appeal with respect to the remaining GROUP A claims 2, 3, and 7-11 on the basis of the selected claim alone. Therefore, we will sustain the Examiner's rejection of these claims as being unpatentable over AAPA in view of Mizukami for the same reasons discussed *supra* with respect to claim 1.

GROUP B, Claims 4-6, 12-16, 19, and 20

Lastly, we consider the Examiner's rejection of claims 4-6, 12-16, 19, and 20 as being unpatentable over the teachings of AAPA in view of Mizukami. Since Appellants' arguments with respect to this rejection have treated these claims as a single group which stand or fall together, we will select independent claim 4 as the representative claim for this rejection. *See* 37 C.F.R. § 41.37(c)(1)(vii).

Appellants argue that the prior art does not teach or suggest "a bus number manager that detects a change in configuration of the computer system and reads the bus numbering information from the non-volatile memory" (Br. 10).

The Examiner disagrees. The Examiner notes that step 430 of prior art Fig. 4 reads the data from the non-volatile memory to determine if the data is valid (Specification Fig. 4). The Examiner notes that Mizukami teaches if data (i.e., node information) cannot be collected from a memory (i.e., because the data is invalid) then "the processing routine advances to a recovery process for collecting the node information from the backup nodes adjacent to such a node (*See* steps S15 to S18)" (¶ 0095). The Examiner concludes the combination of AAPA and Mizukami demonstrates to those skilled in the art that if bus numbering information (i.e., as collected by Bus Manager 119, Specification fig. 4)) is determined to be invalid (Specification 9, ll. 14-16), then a copy of the previously valid bus numbering information should be retrieved from an adjacent physical enclosure or node, as suggested by Mizukami at ¶ 0095 (Answer 22-23).

In the Reply Brief, Appellants further argue that the instant invention differs from Mizukami because the instant invention does not transfer data to the failed node (Reply Br. 3). Appellants argue that "bus numbering that is re-configured is not in the 'failed node' but in the replacement of the failed node" (*id.*).

We agree with the Examiner that the claim limitations argued by Appellants are taught or suggested by the combination of Bus Manager 119 (Specification fig. 4) and the recovery process disclosed by Mizukami (¶ 0095). We find "a bus number manager that detects a change in configuration of the computer system and reads the bus numbering information from the non-volatile memory" is disclosed in Appellants' own description of the prior art (*See* Specification fig. 4, step 430, p. 8, l. 10, p. 9, ll. 14-21). We further find that Mizukami's recovery process teaches

reading or restoring information from an adjacent node (i.e., from a second physical enclosure) (¶ 0095).

With respect to Appellants' argument that "bus numbering that is re-configured is not in the 'failed node' but in the replacement of the failed node" (Reply Br. 3), we note that Appellants admit in the subsequent sentence that this limitation is not found in the instant claims:

> While this second difference is not in the claims explicitly, it is the nature of the invention and is significant with respect to the Examiner's broad interpretation of the similarities between the claimed invention and the prior art (AAPA and Mizukami). (Reply Br. 3).

We note that patentability is based upon the claims. "It is the *claims* that measure the invention." *SRI Int'l v. Matsushita Elec. Corp.*, 775 F.2d 1107, 1121, 227 USPQ 577, 585 (Fed. Cir. 1985) (*en banc*) (emphasis in original). When making a patentability determination, the *claimed* invention must be compared to the prior art. A basic canon of claim construction is that one may not read a limitation into a claim from the written description. *Renishaw plc v. Marposs Societa' per Azioni*, 158 F.3d 1243, 1248, 48 USPQ2d 1117, 1120 (Fed. Cir. 1998). Therefore, for at least the aforementioned reasons, we conclude the Examiner has met the burden of establishing a prima facie case of obviousness. Accordingly, we will sustain the Examiner's rejection of representative claim 4 as being unpatentable over AAPA in view of Mizukami.

Pursuant to 37 C.F.R. § 41.37(c)(1)(vii), we have decided the appeal with respect to the remaining GROUP B claims 5, 6, 12-16, 19, and 20 on the basis of the selected claim alone. Therefore, we will sustain the

Examiner's rejection of these claims as being unpatentable over AAPA in view of Mizukami for the same reasons discussed *supra* with respect to representative claim 4.

DECISION

In summary, we have sustained the Examiner's rejection of all the claims on appeal. Therefore, the decision of the Examiner rejecting claims 1-16, 19, and 20 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

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